



Agricultural  
Research  
Service

United States  
Department of  
Agriculture

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# Official ARS Laboratory Notebook

Notebook No. \_\_\_\_\_

Name \_\_\_\_\_

Location \_\_\_\_\_  
\_\_\_\_\_

CRIS Project No. \_\_\_\_\_

Title \_\_\_\_\_  
\_\_\_\_\_

Dates Used: From \_\_\_\_\_ To \_\_\_\_\_





Agricultural  
Research  
Service

United States  
Department of  
Agriculture

## Guidelines for Proper Use of Your ARS Laboratory Notebook

- Use this book as a daily log for your research work plans and results.
- Do not write in the notebook in pencil or other erasable medium.
- Make corrections by crossing through the item and initialing.
- Do not remove any pages from this book.
- Cross-reference instrument printouts when such data is retained in a separate location.
- Date entry and initial each filled page. Periodically have your entries witnessed (signature and date) by another employee, particularly where patentable information or data pertinent to regulatory activities could possibly be entered.
- This book and the information contained therein is the property of the Agricultural Research Service.

357-1897  
→ 641  
301 345 1697

Chae + Lammert  
50103

Myosotis sylvatica  
[unclear]  
[unclear]

Jan Cambria  
662 99

gypcaraba fall

Socks

Atlanta Sept. 5/96  
Dr. Church St.

New tiny mouse collected by  
Rodrigues Anton

on tree - 20 yds. from road, ca 34 ft  
from station at Iwokrama

WANK LAB - TEAMITH COLLECTION

1 MAY 1992 - 10:30 AM - 9:30 PM DUMBA

Looked over notes & samples - got catalog, labels, jars etc  
to see what the specimens were. Did the catalog, but didn't  
catalog them.

1) put all labels in bags together, in alpha order in the  
most appropriate cabinet (usually the one where the labels  
were that cabinet letters were). Put Q, R & S together.

In the most appropriate place in the cabinet (May have widely  
scattered). Put all labels in bags together from the  
st. cabinet into a paper cabinet. <sup>then - cabinet labels</sup>

2) put all labels in bags into trays where possible.

3) tried to look up partially - labels & unlabeled  
jars to see if I could find where they should  
go by looking at labels - with little success.  
Insufficient info. on the jars and  
in the cards! I don't see any labels. Some  
most of them. I saw only the back of the bags.

4) cleaned glass on top of drawers & found some  
petal jars of bags like white, numbered bags  
in uncataloged area on bottom shelves of cabinet.

5) put letters on cabinet doors in which  
so I could see where they were. Some  
are not alphabetical but in mixed up order.

6) put miscellaneous & unlabeled unlabeled in other cabinet.

10 MAY 1992 - 9:30 PM - DUMBA

May 4,  
1992







11, 12, 13, 14 M - 11:00 AM, up to 10:00 AM

✓ BDE 94-12: *Labeasteria labialis* - nest up in  
get more 1/2 ft on 6 ft. - concussed, most dead except  
40 mm. alates - 14 ♀♀ saved - 85% Hely, 2 subadults  
BDE 94-13: *Chalcidius* sp.  
Barely - many alates

*Arctosternus albidus* (Hagen)

BDE 94-14 - *Nasutitermes* sp.

Fr. 14, 18

Matt: Do 9A First sat.  
then 19

Jan. - Do 13  
12 1/2  
16 1/2  
15

Don't 9A-  
19 2 1/2  
14



Two-Spot

✓ BDE 94-15 - *Camponotus* sp. - Taped to  
BDE 94-15 - *Camponotus* sp. - Taped to  
BDE 94-15 - *Camponotus* sp. - Taped to  
BDE 94-15 - *Camponotus* sp. - Taped to

✓ BDE 94-16 - *Termes inguinalis* (Emerson)  
BDE 94-16 - *Termes inguinalis* (Emerson)  
BDE 94-16 - *Termes inguinalis* (Emerson)

✓ BDE 94-17 - *Nasutitermes* sp. - Taped to  
BDE 94-17 - *Nasutitermes* sp. - Taped to  
BDE 94-17 - *Nasutitermes* sp. - Taped to

✓ BDE 94-18 - *Reticulitermes* sp. - in  
BDE 94-18 - *Reticulitermes* sp. - in  
BDE 94-18 - *Reticulitermes* sp. - in

BDE 94-19 - *Arctosternus* sp. - Taped to  
BDE 94-19 - *Arctosternus* sp. - Taped to  
BDE 94-19 - *Arctosternus* sp. - Taped to

BDE 94-20 - *Formica* sp. - Taped to  
BDE 94-20 - *Formica* sp. - Taped to  
BDE 94-20 - *Formica* sp. - Taped to

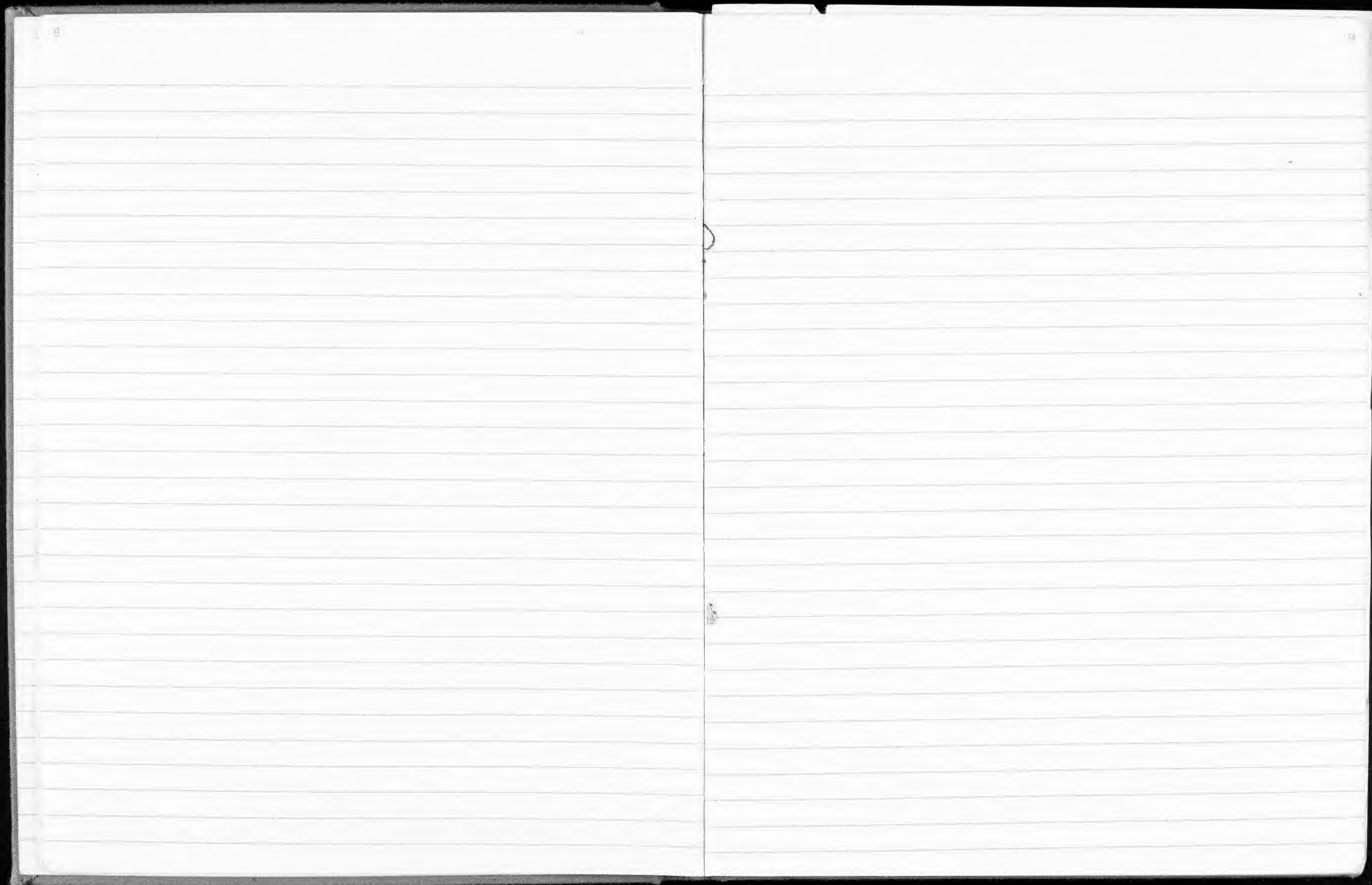
BDE 94-21 - *Mayratermes* sp. - Taped to  
BDE 94-21 - *Mayratermes* sp. - Taped to  
BDE 94-21 - *Mayratermes* sp. - Taped to

✓ BDE 94-22 - *Mayratermes* sp. - Taped to  
BDE 94-22 - *Mayratermes* sp. - Taped to  
BDE 94-22 - *Mayratermes* sp. - Taped to

BDE 94-23 - Small nest brought in by R. Ant  
TINX! name - to name of it













Once upon a time, there was a boy named Jason

Tasso lives in a community in the north Rapunon, district 9 - the village of Eurana. His father is a well-known bird trapper, not a skilled ~~worker~~ <sup>worker</sup>. Like many other residents of the area, he has many skills. Tasso's father builds beautiful furniture. His mother, <sup>his mother</sup> ~~his~~ <sup>Madeira alpicorne</sup> cares well for her family and also looks after the food for the staff and visitors who come to the new field station at Eurana. She is one of the great cooks of the country, and makes visitors feel very comfortable. <sup>the original residents</sup>

comparable.  
Jason belongs to a ~~group~~<sup>community</sup> of the original residents of Guyana; who have lived here for thousands of years.

They have learned much about the plants -  
trees, ~~herbs~~ those that are good for food,  
those that are good for medicine, and  
those that can poison or hurt the  
person who ~~comes in~~ touches them.  
The Jason's people have learned how to use  
these plants in a way that lets the plants  
continue to survive - The forests are beautiful,  
with many kinds of trees and low-growing  
plants. People <sup>become</sup> <sup>after the war</sup> interested in botany and in  
the medicinal uses of plants come to Guyana to  
study, and the people of Jason's community and  
others like them can teach visitors much  
of value.



Aquiri = Ganti

The rivers are full of <sup>snails</sup> fish, turtles, caimans, & all good to eat. The forest also has many kinds of fruits and other animals like the Aquiri, the Latta, and the Bush Cow. <sup>and Tiger</sup> These have different names in other countries:

Aquiri is also called Agouti

Latta is also called Pacca or Tepequintle

Bush Cow is also called Tapir

Tiger is also called Jaguar

The people use the river for transportation; canoes and motor boats get people ~~to~~ to where they wish to go.

The residents of river communities enjoy legal fruits <sup>including</sup>: Coconuts, Bananas, Plantains, fish and turtles from the river; and game from the forest. Gardening provides root and tuber crops (ground provisions) including Cassava, bread and seasoning and vegetables such as okra, tomatoes, peppers, and











Aug-at  
 Selected Colony Sites  
 Dry-land (Kobukemishin)  
 Nesting (damp/argued) - dead tree, dening - 1500

I. schwaigi - small dead mangrove ~~1500~~ 1200

Cypripedium hirsutum - 3000 - structural limbs

most Alptin Kobukemishin  
 Nesting - 25000  
 " juveniles - 1800

- 1/2

### Subterranean

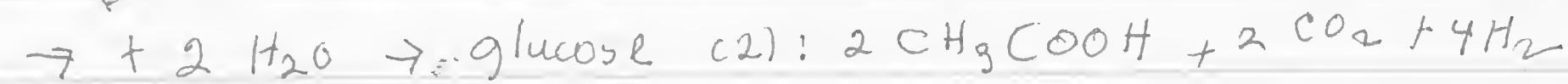
Heterosternus anis - 0.3 million

Cypripedium formosense - 1.4 - 3.9 million

Nantidion - esmige > 1 million



Cellulose:  $C_6H_{12}O_6$



then:  $CO_2$ -reducing Acetogenic bacteria convert  $H_2$  and  $CO_2$  to an additional acetate molecule:



3 net acetates formed per glucose monomer are absorbed from the hindgut and oxidized by the Termite to support up to 100% of the insect's respiratory requirement:



Reduction of  $CO_2$  by methanogenic bacteria will yield  $H_2$  and  $CH_4$

$H_2$  and  $CH_4$  are <sup>also</sup> emitted by Termites, but the amount of emitted methane is small in wood-feeders.

Range,  $CH_4$  emitted: micrograms of product / gm termite / hr.

Wood feeders: 0.00  $\rightarrow$  1.30\* (most less than 0.30)  
(single species)

Grass feeders: 0.18

Fungus growers: 0.00  $\rightarrow$  0.25  $\rightarrow$  0.67

Soil feeders: 0.39  $\rightarrow$  1.09 most above 0.45

# Little Canyon - 1995

Feb. 13, 1995 *Cryptotermes* sp. - found in nest of *Cryptotermes*  
LC 95-1 - *Cryptotermes* sp. in nest of *Cryptotermes* - 1st instar  
found in nest of *Cryptotermes* - 1st instar  
Jan. 31, 1995 - *Cryptotermes* sp. - 1st instar, 1st instar

LC 95-2 *Termitomyces* sp. - 1st instar, 1st instar  
LC 95-3 *Termitomyces* sp. - 1st instar, 1st instar

LC 95-4 *Termitomyces* sp. - 1st instar, 1st instar  
LC 95-5 *Termitomyces* sp. - 1st instar, 1st instar

LC 95-6 *Termitomyces* sp. - 1st instar, 1st instar  
LC 95-7 *Termitomyces* sp. - 1st instar, 1st instar  
LC 95-8 *Termitomyces* sp. - 1st instar, 1st instar

LC 95-9 *Termitomyces* sp. - 1st instar, 1st instar  
LC 95-10 *Termitomyces* sp. - 1st instar, 1st instar

Feb 14, 1995 *Termitomyces* sp. - 1st instar, 1st instar  
LC 95-11 *Termitomyces* sp. - 1st instar, 1st instar  
LC 95-12 *Termitomyces* sp. - 1st instar, 1st instar

LC 95-13 *Termitomyces* sp. - 1st instar, 1st instar  
LC 95-14 *Termitomyces* sp. - 1st instar, 1st instar  
LC 95-15 *Termitomyces* sp. - 1st instar, 1st instar

LC 95-16 *Termitomyces* sp. - 1st instar, 1st instar  
LC 95-17 *Termitomyces* sp. - 1st instar, 1st instar  
LC 95-18 *Termitomyces* sp. - 1st instar, 1st instar

LC 95-19 *Termitomyces* sp. - 1st instar, 1st instar  
LC 95-20 *Termitomyces* sp. - 1st instar, 1st instar











Name:

Address / FAX #

P = paragraph  
L = line

Please call me at 809: ~~ps~~ to confirm receipt and  
resolve possible questions - Wednesday morning - 10:30 - 12:00 N.

Requested Changes:

Page 1 - P<sub>3</sub> L<sub>5</sub> - Father taught Agriculture; ~~(the~~ Biology year  
was an emergency fill-in); L<sub>6</sub> - ... to study Biology.

Exp. Note (Genetics was not a separate discipline <sup>then</sup> in those days)

L<sub>7</sub> --- curriculum, she changed to Arts programs, but  
later, on the advice of a competent new biologist,  
she reentered the Biology program. He recommended  
U of Chicago and Ecology as her most rewarding  
area and place of study for further study.

P<sub>4</sub>, L<sub>1</sub> - she married a fellow Biology major while ~~an~~ an  
undergraduate; his call to military service and the  
dependency allowance allowed her to enter the University  
of Chicago Zoology department in 1944.

Page 2 - P<sub>1</sub> L<sub>2</sub> - delete "Still".

P<sub>1</sub> L<sub>8</sub> --- with maintenance of the many ~~terms~~ etc.

P<sub>2</sub> L<sub>2</sub> delete "for vacant posts" - the faculty members  
were mainly too old for military service.

L<sub>4</sub>. Delete entire section; substitute: The end of WWII  
permitted her husband to finish his undergraduate pre-medical  
education; and he chose Howard University, ~~in Washington, D.C.~~  
she joined him, and secured employment in the  
Zoology department there. She taught during the  
regular school year, and returned to Chicago in  
summers to complete her research for the doctorate.

~~With~~ Awarded in 1949, in 1950 she qualified for Assistant  
Professor; when this was not granted in 1951, she accepted



a full professorship at Florida A & M in Tallahassee,  
where she served as teacher, <sup>and</sup> department head, ~~and briefly,~~  
~~As of 1963.~~ She ~~then returned to Howard.~~

She was an active participant in the civil rights  
movement of the late 50's, and, at one time, with  
<sup>students and the</sup> searched a newly-equipped building for a  
<sup>chairman of the</sup> threatened bomb plant.  
<sup>department</sup>

She returned to Howard, and Washington, D.C. to  
improve educational opportunities for her children  
(~~2 sons~~ ~~and a~~ ~~son~~ ~~from~~ ~~Howard~~, two of her  
best - - - - -)

Page 3 l. 2 She went to Guyana first in the late 20's, and eventually  
<sup>was given permission to rebuild the field station at Kaituma</sup>  
l. 2 ~~Collins had~~ <sup>She</sup> amassed a large collection  
of Guyanese termites, identified with the aid  
of Emerson's excellent key and help given  
his ~~museum~~ collection ~~now~~ housed at the  
American Museum of Natural History. ~~Collins~~ She  
expressed interest in providing a reference  
collection for the Biological Diversity Program <sup>the</sup> ~~Guianas~~  
established so effectively by Dr. Vicki Funk -  
and her interests fitted well with the important  
discipline of microbial <sup>genetics</sup> identification by the  
molecular Systematics / Microbiology disciplines  
represented by Dr. Kane -

Page 4 l. 6 substitute "material" for "specimen"; we  
don't want the Fish & Wildlife Service on our necks.



# Introduction

The Cayman Islands are a relatively large island group in the Caribbean Sea, consisting of three main islands: Cayman, Grand Cayman, and Little Cayman. The islands are located about 135 km long and 24 km wide, with a total area of 264 km<sup>2</sup>. The islands are known for their diverse marine life, including many species of fish, coral, and other marine organisms. The islands are also known for their unique flora and fauna, including many species of birds, reptiles, and plants. The islands are a popular tourist destination, and the government has established a national park to protect the islands' natural resources. The islands are also a member of the Caribbean Community and Common Market (CARICOM).

## History of Termite Studies on the Cayman Islands

The first formal <sup>expedition</sup> ~~attempt~~ collection of termites on the Cayman Islands was the Oxford University Cayman Island Biological Expedition in 1938. ~~The~~ <sup>Dr.</sup> M. C. Bernard Lewis, of the Entomology Department at the Oxford University Museum, was responsible for the insect collection, and he sent these specimens to Dr. Alfred Emerson, the University of Chicago, for identification. Emerson's reply, dated Jan. 26, 1940, is in the collection of the Cayman Islands Museum.



? Just list the Termites Emerson  
identified - save the rest for lat

determined the fauna to include ~~68~~ species, as follows:  
Halotermitidae:

*Incisitermes* *tolozani* Snyder / cast of damage to a house in Honduras

a large termite found in driftwood and in dead trees in moist areas, especially mangroves; common in the Bay area before draining operations; first described from Panama. found ~~on shore~~ in Honduras, Belize and many Caribbean Islands

2 ~~sp~~ undetermined species of *Incisitermes* - ~~not to~~ *confused* - Emerson held these for further study and association with the proper soldier.

*Nasutitermes* *angustoculus* Snyder (now *Nasutitermes* *castaneus* *peumister*, a larger *Halotermitis* ~~restricted to~~ dead branches of live tree and <sup>large</sup> ~~very~~ damp dead wood; ~~now~~ found attacking *Arceuthobium* ~~tree~~ and Pecan tree, and common in the roots of Oleander. This Termite attacks young teak trees in Cuba, and damages fruit and nut trees in south Florida. This species has been recorded for Barbados, Cuba, Dominica, Hispaniola, Jamaica, Montserrat, Puerto Rico, Trinidad and Tobago and Caicos. No structural damage recorded, but considerable agricultural damage

penetrating these or in

An undetermined species of *Cryptitermes*, alates taken at light trap (Little Cayman)

A new species of *Cryptitermes* alate to be kept until soldier has been located (Little Cayman)

Termitidae

*Nasutitermes* *pilifrons* (Holmgren) - now *Nasutitermes* *nigriceps* (Haldeman) - a termite with soldiers having heads prolonged to a hollow "nasus" through which defensive glue can be squirted  
*Microcerotermes* *arborescens* Emerson, taken on Tort. ~~GP~~ Grand Cayman and Cayman Brac

This material ~~is~~ is now in England (part); the specimens Emerson retained for study are ~~perhaps~~ <sup>now</sup> in the American Museum of Natural History collection with the rest of Emerson's material; ~~now~~ they are now on loan to us for completing the termite survey.

Museum - go along front going down before George King  
949-7820  
Church St. 6T 90  
West Bay  
Call in Ann



Museum - go along front going North  
Before Surge Run

949-7820

Mr. Surge King

Church St. GT

90

~~West Bay~~

Call in  
Rm



? Just list the Termites Emerson  
identified - save the rest for later  
determined the fauna to include ~~68~~ species, as follows:  
Halotermitidae:

Incisitermes Tahogae Snyder

1 char of damage to a  
beam in Honduras

a large termite found in driftwood and in dead trees  
in moist areas, especially mangroves; common in Red  
Bay area before draining operations; first described  
from Panama. found ~~also~~ in Honduras, Belize, and many  
Tropic of Caribbean Islands

2 ~~sp~~ undetermined species of Incisitermes; ~~not to~~  
~~be further~~ - Emerson held these for further study  
and association with the proper soldier.

Nestitermes angustoculus Snyder (now Nestitermes

capitaneus Seumeister, a larger Halotermitid

~~not to be further~~ ~~not~~ dead branches of live tree and  
very damp dead wood; now found attacking  
Anacardium ~~tree~~ and Pecan trees, and common in

the roots of Oleander. This Termite attacks young  
teak trees in Cuba, and damages fruit and  
nut trees in south Florida. This species has been  
recorded from Barbados, Cuba, Dominica, Hispaniola,  
Jamaica, Mandanah, Puerto Rico, Trinidad and Tobago  
and Caicos. No structural damage recorded, but  
considerable agricultural damage

An undetermined species of Cryptitermes, alates taken at  
light trap (Little Cayman)

A new species of Cryptitermes alate to be kept until  
soldier has been located (Little Cayman)

## Termitidae

Nasutitermes pilifrons (Holmgren) - now Nasutitermes

nigriceps (Haldeman) - a termite with soldiers  
having heads prolonged to a hollow "nasus"; through which  
defensive glue can be squeezed

Microcerotermes arbores Emerson, taken on both  
66 & 67 Grand Cayman and Cayman Brac

This material ~~is~~ is now in England (part); the  
specimens Emerson retained for study are ~~now~~  
in the American Museum of Natural History collection  
with the rest of Emerson's material; ~~now~~ they are  
now on loan to us for completing the termite  
survey.











Little Layman Series

Vit A, Beta-Carotene  
Alfalfa tablets

EPO - Primoin Pill

~~allergy C caps~~

folie Acid

B6

B100

TAURINE

pantothenic Acid B5

54 Ginkgo

call shirB machen

cook Book to Gladys

paper work

Insurance

85%

absolute alcohol

back Hanging gill

Ivory Soap

clear channels

ET 27

COCAINE 4 P57A







Rich & Sarita Turman  
525 Macon Dr.  
Bismarck, ND 58504

701-258-0092

Rich & Sarita Turman

525 Macon Dr.

Bismarck, ND 58504

701-258-0092











Isomys

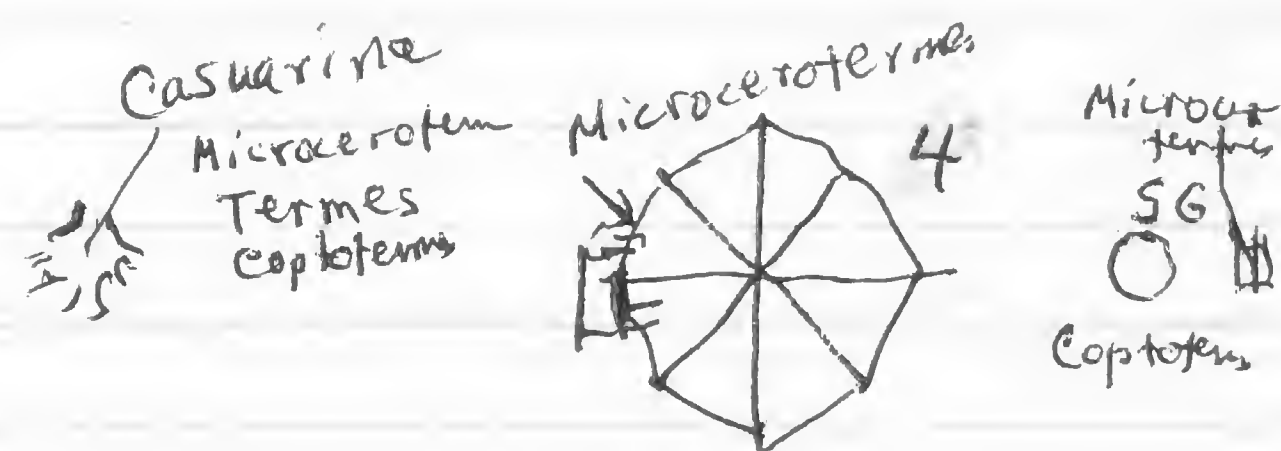
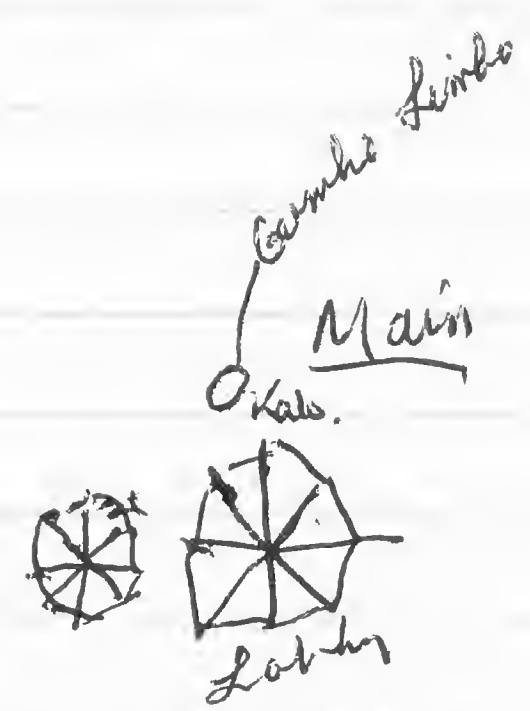
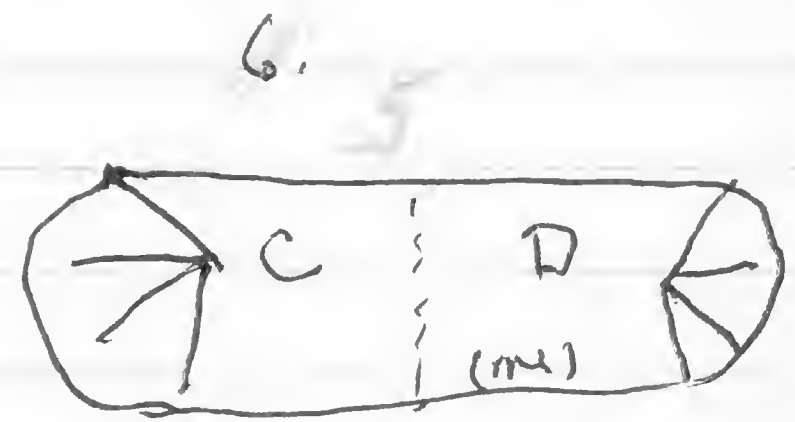
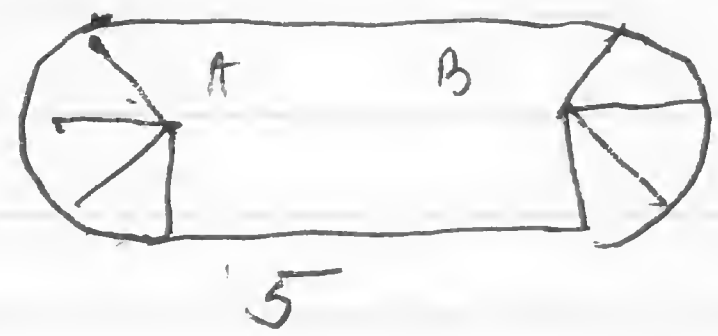
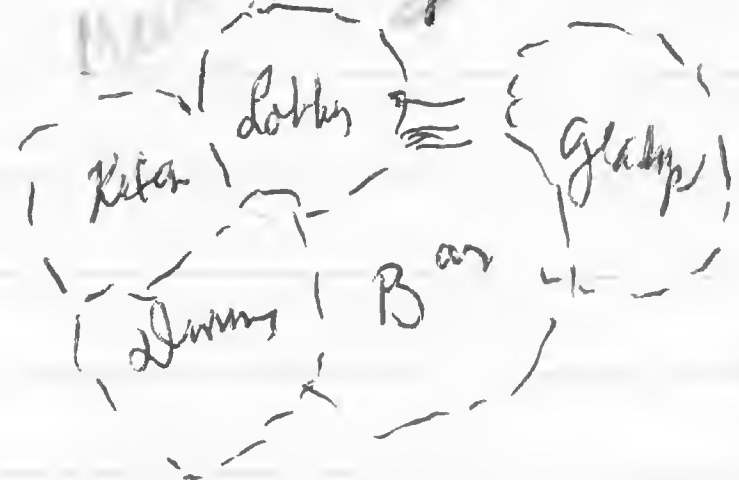
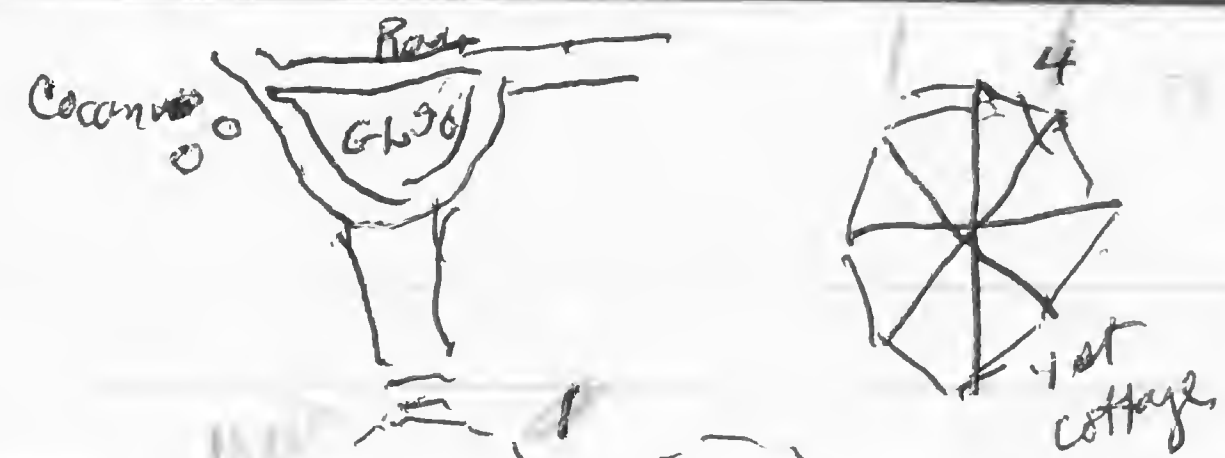
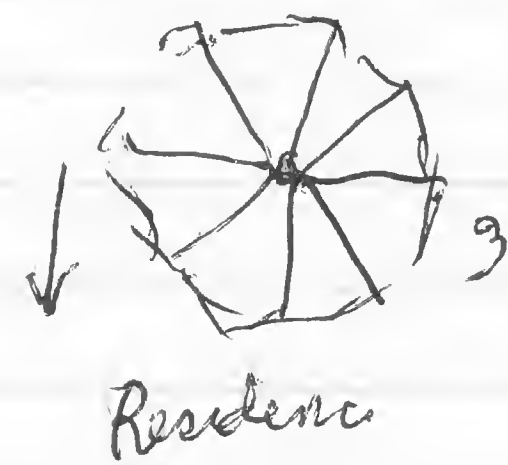
Rat



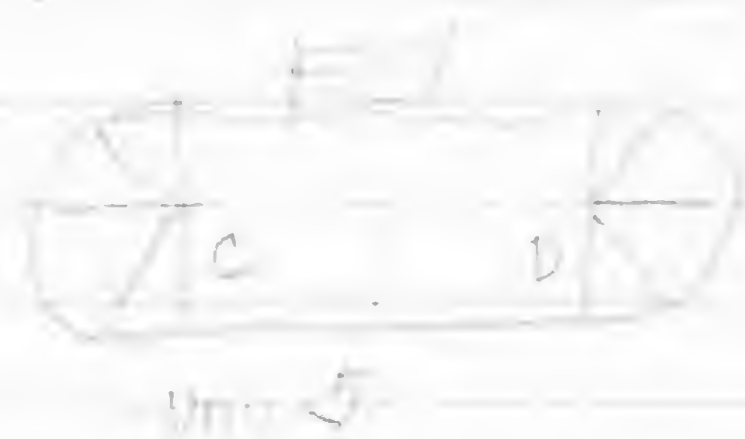
Isomys



1. Main Building













Dr. Nan-yao Su

Univ. Fe. ~~Residenz~~ et H. Lunderdale

$$305^\circ : 475^\circ - 4125^\circ$$

Living alone or  
with

Living alone of C. hawaiiensis abundant in drift wood at or just above normal high tide line, and ~~in particular~~ ~~detritus~~ on depositing shore, along with debris from Jamaica. Nymphs with long very pale prolegs. ~~in detritus~~. Will check Coeyman Sec.

Please inform son that all is well with me:

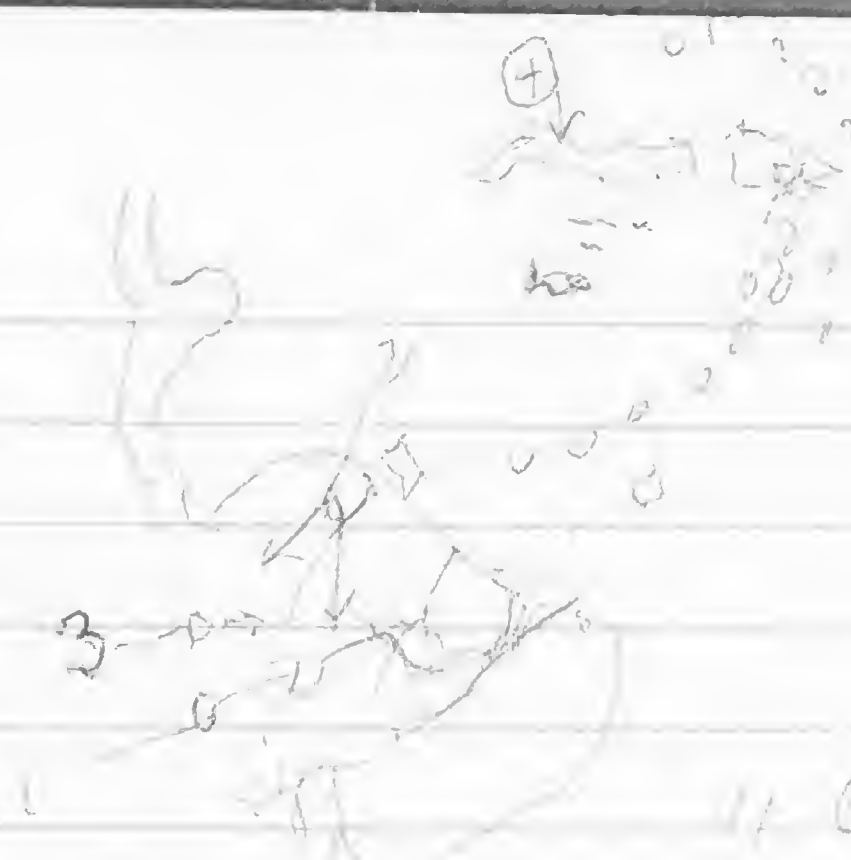
H. B. Collins 301: 868-5362











1) *Cenchrus ciliaris* : Bolivia, Peru,  
~~C. ciliaris~~

2) *C. ciliaris* : Bolivia, Brazil, Uruguay,  
 Uruguay, Chile

3) *C. ciliaris* - common

4) *C. guianensis* : Brazil, Chile,  
 Peru

There were only a few named Indians

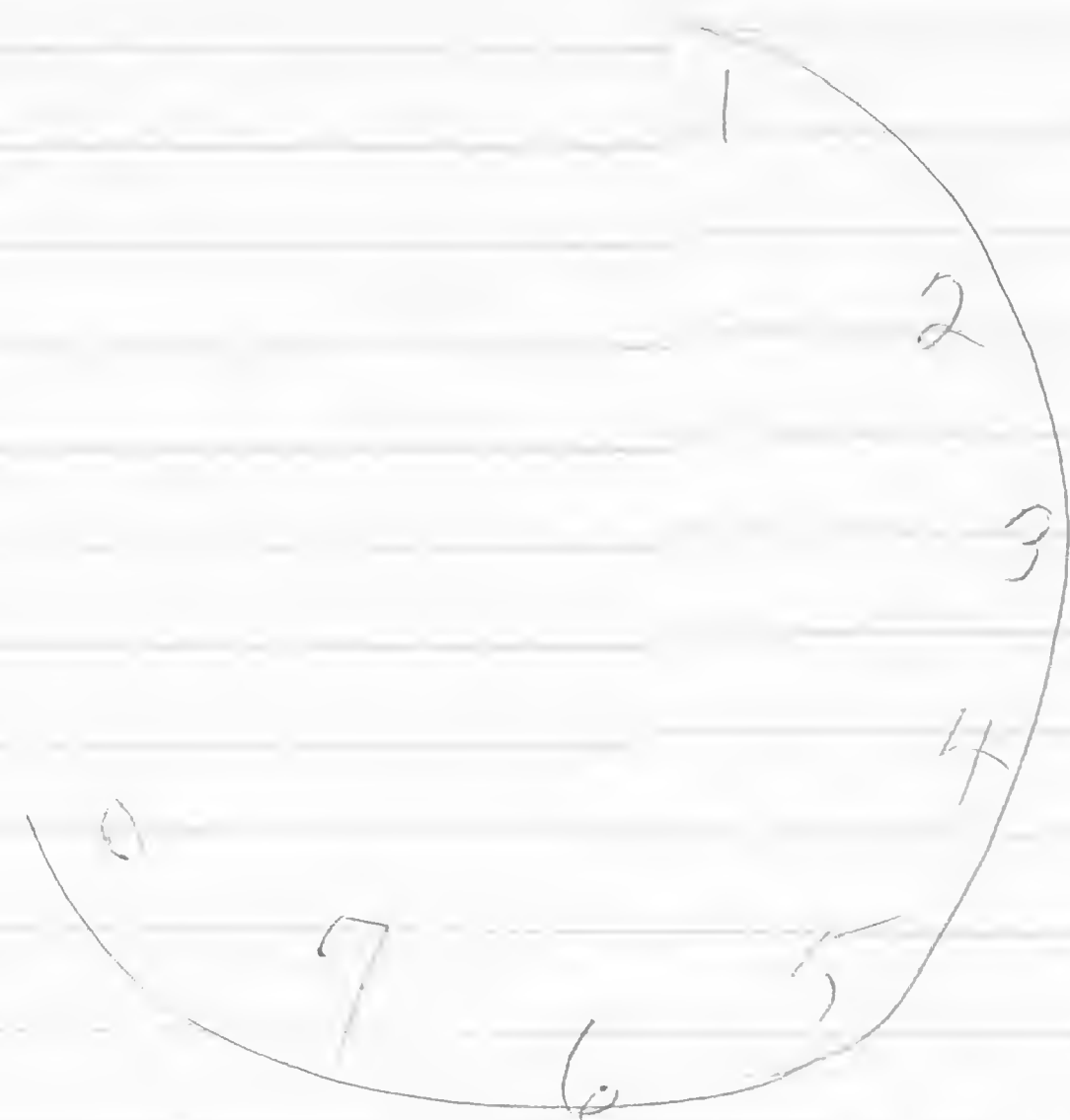
Holbe, Malcom, Thompson, Allinson,  
Pach, Kenneth, and  
Jacobsen.

Before I left the station, the Indian  
Sawyer



Margaret  
S. Coll:

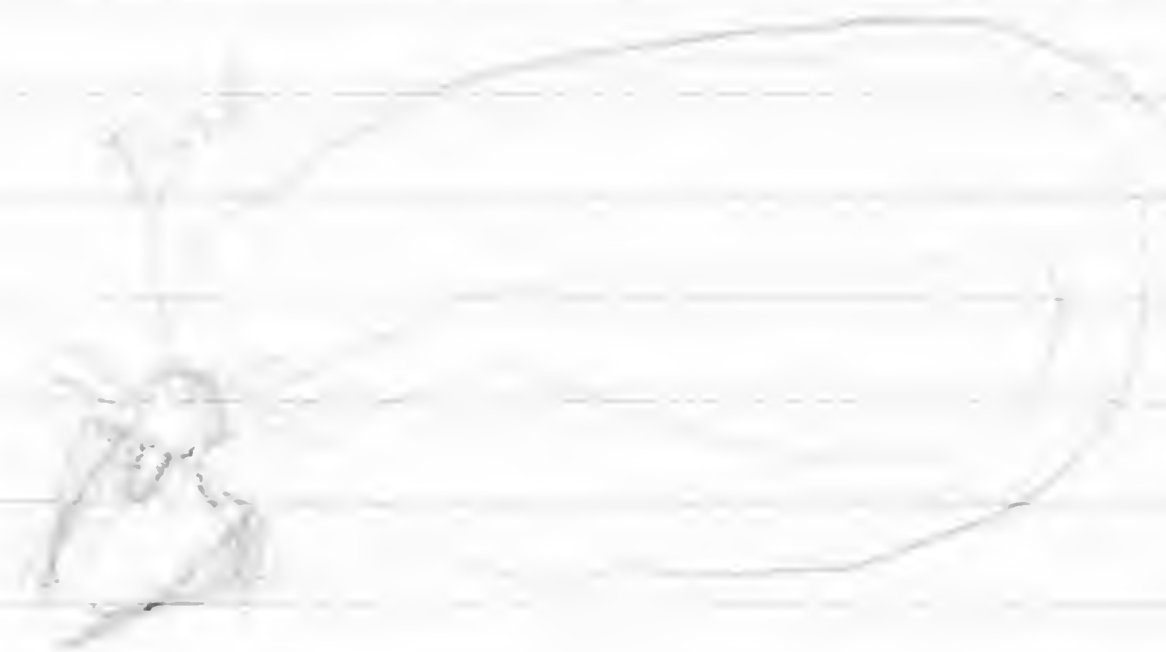
Margaret S. Collins  
1642 ~~Primer~~



DATA  
12/79  
7



System Lost Communication to  
V5, Saturday, Oct. 17<sup>th</sup> at  
11.50 am.



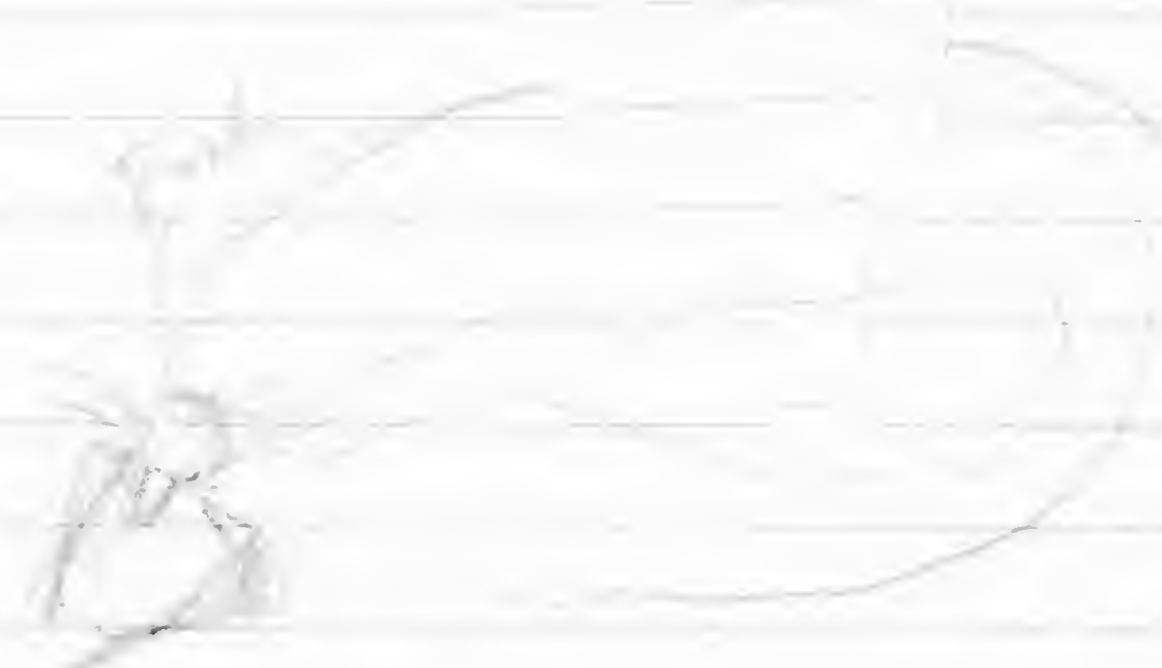
Medien  
addition  
Cayman

B

System A.

7/5, Sat

11.50 A



Ashton Banks

West Bay

P.O. Box 218

Grand Cayman

Cayman Islands

B.W.I.

809 9493532

Direct

Herbal

Medicine

practitioner  
Grand Cayman







